CLAIMS

1. A scalable encoder for encoding a media signal, said encoder comprising
- first encoding means for producing a first data stream, which is a core data stream relating to the media signal, having a first bit-rate,
- second encoding means for producing a second data stream, which comprises a set of enhancement data streams relating to the media signal, having a second bit-rate,
- a multiplexer for combining at least the first data stream and the second data stream into a third data stream, and
- control means, which is arranged to receive control information, to determine a target combination of the first data stream and the second data stream in the third data stream according to the control information and to adjust the combination of the first data stream and the second data stream in the third data stream by affecting the first and the second bit-rates.

2. A scalable encoder according to claim 1, wherein at least one of the first and second encoding means is a variable rate encoding means.

3. A scalable encoder according to claim 2, the control means comprising means for determining a target bit-rate at least for the data stream produced by said one of the first and second encoding means and is arranged to adjust the bit-rate of said data stream.

4. A scalable encoder according to claim 2, the control means further comprising a feedback loop, comparison means and a controller unit;
- said feedback loop arranged to transfer information on an estimated actual bit-rate of said data stream to the comparison means;
- said comparison means being supplied with a target bit-rate, arranged to calculate the difference between the estimated actual bit-rate of said data stream and target bit-rate and to provide the calculated difference to the controller unit;
- said controller unit being arranged to output a control signal to said one of the first and second encoding means, as a response to receiving said calculated difference; and
- said one of the first and second encoding means being arranged to adjust the bit-rate of said data stream according to the received control signal from the controller unit.

5, A scalable encoder according to claim 4, wherein said one of the first and second

encoding means is arranged to adjust quantization of coefficients representing the media signal according to the control signal.

6. A scalable encoder according to claim 4, wherein said one of the first and second encoding means is the first encoding means, which is a variable rate speech encoder.

7. A scalable encoder according to claim 4, wherein said one of the first and second encoding means is the second encoding means, which is a variable rate audio encoder.

8. A scalable encoder according to claim 7, wherein the variable rate audio encoder is arranged to determine a bandwidth for the media signal according to the control signal.

9. A scalable encoder according to claim 1, wherein at least one of the first and second encoding means is a multi-rate encoding means having a set of available encoding algorithms.

10. A scalable encoder according to claim 9, the control means comprising means for determining a target bit-rate for at least the data stream produced by said one of the first and second encoding means, means for selecting an encoding algorithm among said set of encoding algorithms and for indicating said selected encoding algorithm to said one of the first and second encoding means, which is arranged to use the indicated encoding algorithm.

11. A scalable encoder according to claim 10, said means for selecting an encoding algorithm comprising rate determination means.

12. A scalable encoder according to claim 9, wherein said one of the first and second encoding means is the first encoding means, which is a multi-rate speech encoder.

13. A scalable encoder according to claim 1, further comprising means for determining jointly a first target bit-rate for the first data stream and a second target bit-rate for the second data stream according to said control information.

14. A scalable encoder according to claim 13, further comprising a multiplexer buffer for storing data from the multiplexer for transmission, and in that said

multiplexer buffer is connected to the control means for delivering control information indicating the occupancy level of said multiplexer buffer, said occupancy level indicating the current amount of data stored in the multiplexer buffer.

15. A scalable encoder according to claim 14, wherein the means for determining jointly a first target bit-rate for the first data stream and a second target bit-rate for the second data stream are arranged to adjust the target bit-rates so that the ratio of the target bit-rates is substantially constant as long as the occupancy level of the buffer is below a certain first threshold.

16. A scalable encoder according to claim 1, wherein the control means is arranged to receive control information indicating a preferred combination of the first and second data streams.

17. A scalable encoder according to claim 16, wherein said control information indicating a preferred combination of the first and second data streams is used to determine a preferred ratio of the target bit-rate of the first data stream and the target bit-rate of the second data stream.

18. A scalable encoder according to claim 1, further comprising decoding means for decoding said first data stream into a decoded signal,
wherein said second encoding means are arranged to encode a difference signal, which is the difference between the media signal and the decoded signal, said second encoding means producing the second data stream having said second bit-rate.

19. A scalable encoder according to claim 18, wherein the first encoding means is a speech encoder and the second encoding means is an audio encoder.

20. A scalable encoder according to claim 19, wherein the speech encoder is a multi-rate speech encoder and the audio encoder is a variable rate audio encoder.

21. A scalable encoder according to claim 19, wherein the speech encoder is a variable rate speech encoder and the audio encoder is a variable rate audio encoder.

22. A scalable encoder according to claim 1, wherein the first encoding means is a base layer video encoding means and the second encoder comprises at least one

enhancement layer video encoding means.

23. A scalable encoder according to claim 1, further comprising
- third encoding means for producing a fourth data stream, which is a core data stream corresponding to a second media signal, having a fourth bit-rate, and
- fourth encoding means for producing a fifth data stream, which comprises a set of enhancement data streams corresponding to the second media signal, having a fifth bit-rate,
wherein the multiplexer is arranged to combine at least the first, the second, the fourth and the fifth data streams into a third data stream, and the control means is arranged to determine a target combination of the first, the second, the fourth and the fifth data streams in the third data stream according to the control information and to adjust the combination of said data streams in the third data stream by affecting the first, the second, the fourth and the fifth bit-rates.

24. A multimedia terminal comprising a scalable encoder having
- first encoding means for producing a first data stream, which is a core data stream relating to the media signal, having a first bit-rate,
- second encoding means for producing a second data stream, which comprises a set of enhancement data streams relating to the media stream, having a second bit-rate, and
- a multiplexer for combining at least the first data stream and the second data stream into a third data stream,
and control means, which is arranged to receive control information, to determine a target combination of the first data stream and the second data stream in the third data stream according to the control information and to adjust the combination of the first data stream and the second data stream in the third data stream by affecting the first and the second bit-rates.

25. A multimedia terminal according to claim 24, further comprising an input element for inputting preference information indicating a preferred combination of the first data stream and the second data stream, said preference information being delivered as control information to the control means.

26. A multimedia terminal according to claim 25, wherein said input element constitutes a part of a user interface of the multimedia terminal.

27. A multimedia terminal according to claim 26, wherein the user interface

comprises a slide switch.

28. A multimedia terminal according to claim 25, wherein said input element is arranged to receive external control information.

29. A multimedia terminal according to claim 28, wherein said input element is arranged to receive control information from a communication network.

30. A multimedia terminal according to claim 28, wherein said input element is arranged to receive control information from a second multimedia terminal.

31. A multimedia terminal according to claim 24, said multimedia terminal being a mobile station of a mobile communication network.

32. A multimedia terminal according to claim 24, said multimedia terminal being an H.324 multimedia terminal.

33. A method for scalable encoding of a media signal, said method comprising the steps of:
- encoding the media signal into a first data stream, which is a core data stream corresponding to the media signal, having a first bit rate,
- encoding the media signal into a second data stream, which comprises a set of enhancement data streams corresponding to the media signal, having a second bit rate,
- multiplexing at least the first data stream and the second data stream into a third data stream,
- receiving control information,
- determining a target combination of the first data stream and the second data stream in the third data stream according to the control information, and
- adjusting the combination of the first data stream and the second data stream in the third data stream by affecting the first and the second bit-rates.

34. A method according to claim 33, further comprising the steps of:
- determining according to the control information a preferred ratio for a target bit-rate of the first data stream and a target bit-rate of the second data stream,
- determining jointly said target bit-rates,
- feeding the third data stream into a buffer, and
- determining the occupancy level of the buffer,

wherein, when the occupancy level of the buffer is below a certain first threshold (T_2), the ratio of said target bit-rates is substantially said preferred ratio.

35. A method according to claim 34, wherein, when the occupancy level of the buffer is below a certain second threshold (T_1), the target bit-rate for the first data stream is determined based on the content of the media signal.